# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE                        | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------------------------------|----------------------|---------------------|------------------|
| 10/659,197      | 09/09/2003                         | Takayuki Kikuchi     | 1232-5138           | 5601             |
|                 | 7590 07/30/200<br>FINNEGAN, L.L.P. |                      | EXAMINER            |                  |
| 3 WORLD FINA    | NANCIAL CENTER<br>NY 10281-2101    |                      | LAM, HUNG H         |                  |
| NEW TORK,       |                                    |                      | ART UNIT            | PAPER NUMBER     |
|                 |                                    |                      | 2622                | •                |
|                 |                                    |                      |                     |                  |
|                 |                                    |                      | MAIL DATE           | DELIVERY MODE    |
|                 |                                    |                      | 07/30/2007          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 | Application No.                    | Applicant(s)            |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|------------------------------------|-------------------------|--|--|--|
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 | 10/659,197                         | KIKUCHI ET AL.          |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 | Examiner                           | Art Unit                |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 | Hung H. Lam                        | 2622                    |  |  |  |
| Period fo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | The MAILING DATE of this communication app<br>or Reply                                                          | ears on the cover sheet with the c | orrespondence address   |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                                                                                                                 |                                    |                         |  |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                 |                                    |                         |  |  |  |
| 1) 又                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Responsive to communication(s) filed on 09/09                                                                   | )/03                               |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | This action is <b>FINAL</b> . 2b)⊠ This action is non-final.                                                    |                                    |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is |                                    |                         |  |  |  |
| ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.                       |                                    |                         |  |  |  |
| Dispositi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on of Claims                                                                                                    |                                    |                         |  |  |  |
| 4)🛛                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 4)⊠ Claim(s) <u>1-13</u> is/are pending in the application.                                                     |                                    |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 4a) Of the above claim(s) <u>7-13</u> is/are withdrawn from consideration.                                      |                                    |                         |  |  |  |
| 5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5) Claim(s) is/are allowed.                                                                                     |                                    |                         |  |  |  |
| 6)⊠                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Claim(s) 1-6 is/are rejected.                                                                                   |                                    |                         |  |  |  |
| 7)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Claim(s) is/are objected to.                                                                                    |                                    |                         |  |  |  |
| 8)□                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Claim(s) are subject to restriction and/or                                                                      | r election requirement.            |                         |  |  |  |
| Applicati                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | on Papers                                                                                                       |                                    |                         |  |  |  |
| 9)⊠                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | The specification is objected to by the Examine                                                                 | r.                                 | •                       |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | The drawing(s) filed on <u>09 September 2003</u> is/a                                                           |                                    | ted to by the Examiner. |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 |                                    |                         |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                 |                                    |                         |  |  |  |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                 |                                    |                         |  |  |  |
| Priority u                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | inder 35 U.S.C. § 119                                                                                           |                                    |                         |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a)⊠ All b)□ Some * c)□ None of:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                 |                                    |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1. Certified copies of the priority documents have been received.                                               |                                    |                         |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                 |                                    |                         |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                 |                                    |                         |  |  |  |
| application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                 |                                    |                         |  |  |  |
| dec the attached detailed office action for a list of the certified copies not received.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                 |                                    |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                 |                                    |                         |  |  |  |
| Attachment(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                 |                                    |                         |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1) X Notice of References Cited (PTO-892)  4) Interview Summary (PTO-413)  Paper No(s)/Mail Date                |                                    |                         |  |  |  |
| Notice of Diatisperson's Patent Diawing Review (PTO-946)   Information Disclosure Statement(s) (PTO/SB/08)   Paper No(s)/Mail Date   5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                 |                                    |                         |  |  |  |

#### **DETAILED ACTION**

### **Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

## Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### Election/Restrictions

3. Claims 7-13 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 05/03/07.

## Claim Rejections - 35 USC § 103

- 4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2622

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshikawa (JP2000-066,288) in view of the Applicants Admitted Prior Art (AAPA).

With regarding **claim 1**, Yoshikawa discloses a lens apparatus mountable to a camera comprising:

a focus driver which drives a focus lens (Drawing 1; 101; Embodiment of the Invention: 0022-0024; a focus driver is inherently included in order to drive focus lens group 101);

a terminal which is a member for communication with the camera (Embodiment of the Invention: 0020); and

However, Yoshikawa fails to explicitly disclose a signal generating circuit into which an image-pickup signal output from the camera is input via the terminal, and which generates a focus driving signal for the focus driver based on the image-pickup signal.

In the same field of endeavor, the AAPA teaches a camera system having a sharpness evaluation value generating circuit (AAPA: Fig. 8; 216) which output evaluation signals from the camera side via an interface cable between camera side IF 215 and lens side IF31. The AAPA further teaches that the evaluation signals are used for generating motor driving signal to drive focus lens 315 ([0006-0011]). In light of the teaching from AAPA, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device of Yoshikawa by having a sharpness evaluation value generating circuit in order to drive the focus lens. The modifications thus provide a better focusing control system.

With regarding **claim 2**, Yoshikawa in view of AAPA discloses the lens apparatus wherein the signal generating circuit calculates evaluation values each indicating the sharpness of an image, based on the image-pickup signal input from the camera (AAPA: [0006-0012]), and generates the focus driving signal based on a comparison result of a plurality of the calculated evaluation values ([0011-0014]).

With regarding **claim 3**, Yoshikawa in view of AAPA discloses the lens apparatus, further comprising:

a parallel communication terminal for performing communication with the camera by a parallel communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

a serial communication terminal for performing communication with the camera by a serial communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

an image input circuit into which an image-pickup signal is input from the camera through a communication line (AAPA: [0006-0014]) connected to the parallel communication terminal (Yoshikawa: Detailed Description of the Invention: 0002-0011;0023-29);

a communication format determination circuit that determines whether the camera complies with the serial communication format (Yoshikawa: abstract; [0024-0026]); and

an image-pickup signal selection circuit which outputs the image-pickup signal, which has been input into the image input circuit, to the signal generating circuit (AAPA: [0006-0014]), when the communication format determination circuit has determined that the camera complies with the serial communication format (Yoshikawa: abstract; [0024-0026]).

With regarding **claim 4**, Yoshikawa in view of AAPA discloses the lens apparatus further comprising:

a parallel communication terminal for performing communication with the camera by a parallel communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

a serial communication terminal for performing communication with the camera by a serial communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

an image input circuit into which an image-pickup signal is input from the camera through the serial communication terminal (AAPA: [0006-0014]);

a communication format determination circuit that determines whether the camera complies with the parallel communication format (Yoshikawa: abstract; [0024-0026]); and

an image-pickup signal selection circuit which outputs the image-pickup signal, which has been input into the image input circuit, to the signal generating circuit (AAPA: [0006-0014]) when the communication format determination circuit has determined that

Application/Control Number: 10/659,197

Art Unit: 2622

the camera complies with the parallel communication format (Yoshikawa: abstract; [0024-0026]).

With regarding **claim 5**, Yoshikawa in view of AAPA discloses the lens apparatus further comprising:

a parallel communication terminal for performing communication with the camera by a parallel communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

a serial communication terminal for performing communication with the camera by a serial communication format as the terminal (Yoshikawa: see drawing 1; pins 8, 16 and 18);

a first image input circuit into which an image-pickup signal is input from the camera through the parallel communication terminal (Yoshikawa: Detailed Description of the Invention: 0002-0011;0023-29; AAPA: [0006-0014]);

a second image input circuit into which an image-pickup signal is input from the camera through the serial communication terminal (Yoshikawa: Detailed Description of the Invention: 0002-0011;0023-29; AAPA: [0006-0014]);

a communication format determination circuit that determines the communication format with which the camera complies (Yoshikawa: abstract; [0024-0026]); and

an image-pickup signal selection circuit which outputs the image-pickup signal, which has been input into the first image input circuit, to the signal generating circuit (AAPA: [0006-0014]) when the communication format determination circuit has

Art Unit: 2622

determined that the camera complies with the serial communication format, and which outputs the image-pickup signal, which has been input into the second image input circuit, to the signal generating circuit (AAPA: [0006-0014]) when the communication format determination circuit has determined that the camera does not comply with the serial communication format or that the camera complies with the parallel communication format (Yoshikawa: Detailed Description of the Invention: 0002-0011;0023-29; AAPA: [0006-0014]).

With regarding **claim 6**, Yoshikawa discloses an image-pickup system comprising:

a lens apparatus according to claim 1 (see the rejection of claim 1); and

a camera to which the lens apparatus is mountable (Yoshikawa: see drawing 1; abstract; ), and which sends an image-pickup signal to the lens apparatus (AAPA: [0006-0014]; see Fig. 8 of AAPA).

### Conclusion

- 6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - a) Yoshikawa (US-6,717,618) discloses a camera system communicating with an interchangeable lens via serial or/and parallel communication format.

Application/Control Number: 10/659,197

Art Unit: 2622

b) Uenaka (US-2002/0,118,972) discloses a camera system which determines whether an old communication or new communication type are requested.

Page 8

- c) Suzuki (US-6,822,684) discloses a camera wherein a CPU judges whether the connection to a camera and a lens is conventional parallel or serial communication.
- 7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday Friday 8AM 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LIN YE can be reached on 571-272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/659,197

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL 07/22/07

LIN YE SPE. ART UNIT 2622

Page 9